1. An integrated circuit that processes communication packets, the integrated circuit comprising:

a pointer cache configured to store pointers that correspond to external buffers that are external to the integrated circuit and configured to store the communication packets; and

control logic configured to allocate the external buffers as the corresponding pointers are read from the pointer cache and de-allocate the external buffers as the corresponding pointers are written back to the pointer cache.

2. The integrated circuit of claim 1 wherein the control logic is configured to track a number of the pointers to the de-allocated external buffers.

3. The integrated circuit of claim 1 wherein the control logic is configured to transfer additional pointers to the pointer cache if a number of the pointers to the de-allocated buffers reaches a minimum threshold.

4. The integrated circuit of claim 1 wherein the control logic is configured to transfer an excess portion of the pointers from the pointer cache if the number of the pointers to the de-allocated buffers reaches a maximum threshold.

5. The integrated circuit of claim 1 wherein the control logic is configured to transfer an exhaustion signal if a number of the pointers to the de-allocated buffers reaches a minimum threshold.

6. The integrated circuit of claim 1 wherein the external buffers are distributed among at least two pools.

7. The integrated circuit of claim 1 wherein the external buffers and the pointers to the external buffers are distributed among a plurality of classes.

8. The integrated circuit of claim 7 wherein the control logic is configured to track a number of the pointers to the de-allocated external buffers for at least one of the classes

9. The integrated circuit of claim 7 wherein the control logic is configured to track a number of the pointers to the allocated external buffers for at least one of the classes

10. The integrated circuit of claim 7 wherein the control logic is configured to borrow at least some of the pointers from a first one of the classes for use by a second one of the classes.

11. The integrated circuit of claim 7 wherein the control logic is configured to re-distribute at least some of the pointers from a first one of the classes to a second one of the classes.

12. The integrated circuit of claim 7 wherein the control logic is configured to transfer an exhaustion signal if a number of the pointers to the de-allocated buffers in one of the classes reaches a minimum threshold.

13. The integrated circuit of claim 7 wherein the control logic is configured to track a number of pointers distributed to one of the classes.

14. The integrated circuit of claim 7 wherein at least one of the classes is associated only with constant bit rate packets.

15. The integrated circuit of claim 7 wherein at least one of the classes is associated only with available bit rate packets.

16. The integrated circuit of claim 7 wherein at least one of the classes is associated only with variable bit rate packets.

17. The integrated circuit of claim 7 wherein at least one of the classes is associated only with unspecified bit rate packets.

18. A method of operating an integrated circuit that processes communication packets, the method comprising:

storing pointers in a pointer cache in the integrated circuit wherein the pointers correspond to external buffers that are external to the integrated circuit and that are configured to store the communication packets; and

allocating the external buffers as the corresponding pointers are read from the pointer cache; and

de-allocating the external buffers as the corresponding pointers are written back to the pointer cache.

19. The method of claim 18 further comprising tracking a number of the pointers to the de-allocated external buffers.

20. The method of claim 18 further comprising transferring additional pointers to the pointer cache if a number of the pointers to the de-allocated buffers reaches a minimum threshold.

21. The method of claim 18 further comprising transferring an excess portion of the pointers from the pointer cache if the number of the pointers to the de-allocated buffers reaches a maximum threshold.

22. The method of claim 18 further comprising transferring an exhaustion signal if a number of the pointers to the de-allocated buffers reaches a minimum threshold.

23. The method of claim 18 wherein the external buffers are distributed among at least two pools.

24. The method of claim 18 wherein the external buffers and the pointers to the external buffers are distributed among a plurality of classes.

25. The method of claim 24 further comprising tracking a number of the pointers to the de-allocated external buffers for at least one of the classes

26. The method of claim 24 further comprising tracking a number of the pointers to the allocated external buffers for at least one of the classes

27. The method of claim 24 further comprising borrowing at least some of the pointers from a first one of the classes for use by a second one of the classes.

28. The method of claim 24 further comprising re-distributing at least some of the pointers from a first one of the classes to a second one of the classes.

29. The method of claim 24 further comprising transferring an exhaustion signal if a number of the pointers to the de-allocated buffers in one of the classes reaches a minimum threshold.

30. The method of claim 24 further comprising tracking a number of pointers distributed to one of the classes.

31. The method of claim 24 wherein at least one of the classes is associated only with constant bit rate packets.

32. The method of claim 24 wherein at least one of the classes is associated only with available bit rate packets.

33. The method of claim 24 wherein at least one of the classes is associated only with variable bit rate packets.

34. The method of claim 24 wherein at least one of the classes is associated only with unspecified bit rate packets.